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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/608,852	Applicant(s) ORR ET AL	
	Examiner Christopher Bottorff	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed May 11, 2005 has been entered. Claims 10 and 11 are canceled. Claim 41 is added. Claims 1-9 and 12-41 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 32 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 32 and 40 each require compression members to substantially prevent rotation of the first member about the axis. In contrast, page 9, lines 23-25, of the specification indicates that non-compressible members allow for the prevention of pivotal motion in one or more directions. The disclosure does not explain how compressible members prevent rotation specifically.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 12-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13, 24, 29, and 36 each recite the terms "pivotal movement" on lines 8, 6, 8, 7, and 7 respectively. Applicants define "pivotal" on page 5, lines 6-8, of the specification as "intended to include pitch and roll movement, or some combination of pitch and roll movement, about a substantially fixed central axis." However, pitch and roll movements in an object, such as the claimed device, occur about two separate axes rather than one fixed axis. Thus, the use of "pivotal" in the claims does not invoke the definition of "pivotal" provided in the specification and the limits of the claimed pivotal movement is not clear. For the purposes of examination, "pivotal" is given its ordinary meaning, defined by Merriam Webster's Collegiate Dictionary, tenth edition, 1997, as "to turn."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 12, 13, 23, 24, and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Metzger et al. US 5,577,755.

Metzger et al. disclose a recreational riding device comprising an elongate board member 90 having upper and lower surfaces and a binding system 10. See Figure 1. The binding system 10 has a base plate 40 having an upper surface adapted to support a rider's foot, and an opposed lower surface oriented adjacent to and spaced apart from the recreational riding device. A support base 20 is removably mated to the elongate board member 90 and defines a fixed central axis. A connecting element 60 mates the base plate 40 to the support base 20 and is adapted to allow pivotal movement of the base plate 40 about the central axis with respect to the support base 20 and elongate board member 90. See column 2, lines 46 and 57-66, and column 3, lines 1 and 2.

The connecting element 60 comprises a support ring 65 hingedly connected to the base plate 40 to allow pivotal movement of the base plate 40. See Figures 1, 3, and 5. The support ring 65 is adapted to mate to the support base 20 via pin 66. See Figure 5. The base plate 40 includes at least one flexible attachment member adapted to engaging a rider's foot, which serves as a binding member, and the base plate 40 includes an engagement element 52 formed thereon for mating with a corresponding engagement element formed on a boot worn by the rider. See column 2, lines 49-54. At least one locking member 66 is adapted to prevent pivotal movement of the base plate 40 in a particular direction about the central axis and the locking member 66 is

Art Unit: 3618

disposed between the base plate and the elongate board member. See Figures 1 and 5.

Claims 29-31, 33-39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Ware.

Ware discloses a suspension system comprising a first member 12, a second member 30, a connecting element 50, 52, 54, 58, and at least one compression element 24. See Figures 1-4. The first member 12 has an upper surface adapted to support a foot and an opposed lower surface. See Figure 2. The second member 30 is positioned a distance apart from the lower surface of the first member, has upper and lower surfaces, and is pivotally coupled to the first member about at least one axis. See Figure 2. The connecting element 50, 52, 54, 58 is positioned between the lower surface of the first member and the upper surface of the second member and is adapted to allow pivotal movement of the first member about an axis with respect to the second member. See Figure 2. A ball 54 on the connecting element engages a socket 56 on the first member such that a ball-and socket interface is disposed between the lower surface of the first member and the upper surface of the second member to allow movement of the first member about the axis with respect to the second member. See Figure 2 and column 3, lines 9-13. Also, the at least one compression element 24 is positioned between the lower surface of the first member 12 and the upper surface of the second member 30 and is adapted to control pivotal movement between the first and second members about the axis. See Figure 2.

The at least one compression element 24 is formed of an elastomeric polymer. See column 2, lines 32-33. The at least one compression element 24 is adapted to compress between the first and second members upon pivotal movement of the first member about the axis due to its elastomeric properties, and the at least one compression element 24 is removably disposed between the first and second members. See Figure 4. Furthermore, the ball 54 on the connecting element is convex and the socket 56 of the first member is concave and receives the convex portion of the ball 54 to allow pivotal movement therebetween. See Figures 1-3.

Claims 13, 29-31, 33, 36, 38, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Humbel US 6,428,032.

Humbel discloses a binding support and suspension system for mounting a rider's foot to a recreational riding device. The system comprises a first member in the form of base plate 15 (including the plate to which bolts 16 are attached and from which prongs 32 extend) having a first, lower, surface adjacent to and spaced apart from a surface of a recreational riding device and a second, upper, surface adapted to support the rider's foot. See Figure 2. At least one connecting element 7 is provided and is adapted to connect the base plate to the recreational riding device such that the base plate is capable of pivotal movement about a fixed central axis. See column 3, lines 39-60.

Humbel further discloses a recreational riding device comprising an elongate board member 3 having upper and lower surfaces. See Figure 1. The binding system

Art Unit: 3618

further has a second member positioned a distance apart from the lower surface of the base plate and has upper and lower surfaces. The second member is in the form of a support that is mated to the elongate board member and defines a central axis axially along screw 8. See column 3, lines 54-60. The connecting element 7 is positioned between the lower surface of the first member and the upper surface of the second member, mates the base plate to the support, and is adapted to allow pivotal movement of the base plate about the central axis with respect to the support and elongate board member. See column 3, lines 39-60.

The connecting element 7 comprises a support ring 70 hingedly connected to the base plate to allow pivotal movement of the base plate. See Figures 1, 2, and 5 and column 3, lines 51-54. The support ring is adapted to mate to the support. See column 3, lines 54-60. At an interface between the support ring and the base plate, the base plate includes at least one slot, formed by forks 93, formed therein for receiving at least one pin member 71a formed on the support ring, the at least one slot and pin members being effective to prevent rotation between the base plate and the support ring in the horizontal plane. See Figures 2 and 5. Each of an inner surface of the support ring and an outer surface of the support includes cooperating surface features formed thereon and are effective to prevent rotational movement of the support ring with respect to the support. See column 3, lines 54-60.

Two compression members 17 are disposed between the lower surface of the base plate and the upper surface of the support and are adapted to removably mate to the lower surface of the base plate. See Figures 2 and 5. the compression members

Art Unit: 3618

are formed from an elastomeric polymer. See column 3, line 64. The compression members 17 are effective to compress between the base plate and the recreational riding device in response to a force applied to at least one of the base plate and the recreational riding device. See Figures 2 and 5 and note that compression of members 17 occurs at a location between the base plate and the recreational riding device. The compression members 17 are adapted to control pivotal movement of the base plate about the axis. The compression members 17 are each spaced substantially equidistant from one another and from a central axis of the base plate. See Figures 2 and 5.

The base plate includes at least one flexible attachment member 33 adapted to engaging a rider's foot, which flexible attachment member serves as a binding member. See Figure 2; column 4, lines 19-30; and column 7, lines 12-17. The base plate includes an engagement element 28 formed thereon for mating with a corresponding engagement element formed on a boot worn by the rider. See Figure 2 and column 7, lines 35-38. At least one locking member, in the form of a knurled surface, is adapted to prevent pivotal movement of the base plate in a particular direction about the central axis and the locking member is disposed between the base plate and the elongate board member. See column 3, lines 54-60. Also, the base plate includes a central opening 14 adapted to surround the support. See Figure 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9, 12, 14-17, 19, 20, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humbel US 6,428,032 in view of Acuna, Jr. US 5,876,045.

Although Humbel discloses that the base plate mates to the support in the manner known generally (see column 3, lines 57-60), Humbel does not disclose that the manner known generally is to provide the support as a support base with a first end adapted to mount upon the recreational riding device and a second end adapted to be oriented adjacent the rider's foot with the fixed central axis extending between the first and second ends of the support base. Humbel also does not disclose that the at least one slot is formed on the support ring and the at least one pin member is formed on the base plate, but that that the at least one slot is formed on the base plate and the at least one pin member is formed on the support ring. In addition, Humbel also does not disclose third and fourth compression members.

However, Acuna, Jr. teaches a manner of mating a base plate to a support that is known generally is to provide the support as a support base 15 with a first, lower, end adapted to mount upon the recreational riding device and a second, upper, end adapted to be oriented adjacent the rider's foot with a fixed central axis, at shaft 40, extending between the first and second ends of the support base. See Figure 2. A knurled

Art Unit: 3618

surface 28 of the support base 15 connects with a knurled surface 30 of the base plate 10. See column 3, lines 30-34. From the teachings of Acuna, Jr., providing the support of Humbel as a support base with a first end adapted to mount upon the recreational riding device and a second end adapted to be oriented adjacent the rider's foot such that the fixed central axis extending between the first and second ends of the support base would have been obvious to one of ordinary skill in the art at the time he invention was made. Providing this arrangement would be effective in allowing the base plate to be arranged in the desired angle and position relative to the recreational riding device while also allowing the base plate to be held in position.

In regard to the arrangement of the slot and pin, forming the slot on the support ring and the at least one pin member on the base plate, rather than the at least one slot on the base plate and the at least one pin member on the support ring as disclosed by Humbel, represents a reversal of part that would have been obvious to one of ordinary skill in the art at the time he invention was made. Such a modification would provide an effective pivotal connection between the base plate and support ring.

Claims 6-8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humbel US 6,428,032 in view of Acuna, Jr. US 5,876,045 as applied to claims 5 and 16 above, and further in view of Knapschafer Us 5,971,419.

Humbel also does not disclose third and fourth compression members. However, Knapschafer teaches the desirability of providing a binding system with four compression members 46 spaced substantially equidistant from one another and from a

Art Unit: 3618

central axis. See Figures 3 and 4. From the teachings of Knapschafer, providing the system of Humbel with third and fourth compression members, in addition to the first and second compression members, such that the compression members are equidistant from one another and from a central axis of a base plate would have been obvious to one of ordinary skill in the art at the time he invention was made. This would provide greater support to the base plate.

Allowable Subject Matter

Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claim 18 defines a peripheral portion of the support ring as being convex and interfacing with an inner, concave wall of the base plate. This arrangement, in combination with the further limitations of the claims, is not suggested by the prior art and distinguishes the claimed invention over the prior art.

Response to Arguments

Applicant's arguments filed May 11, 2005 have been fully considered but they are not persuasive.

In regard to the rejection of the claims pursuant to 35 USC 112, second paragraph, Applicants assert that the term "pivotal" can include both pitch and roll movements about a common axis. However, a motion about one axis cannot be

properly described as including both pitch and roll since pitch and roll motions must occur about two separate axes. While a member, such as base plate 12 of the present invention, may roll about one axis and separately pitch about another axis, when that member moves about a third axis that is perpendicular to the pitch and roll axes or moves through a three dimensional coordinate system, the motion is not pitch and roll. Consequently, the definition of "pivotal" provided on page 5 of the specification is not an accurate statement of the motion about the fixed central axis in the present invention. Thus, Applicants' stated definition of "pivotal" couldn't be applied to the claims.

Moreover, the full scope of the term "pivotal" is not clarified by Applicants' definition since the definition merely indicates that the meaning of the term could include pitch and roll movements. The disclosure, however, suggests that the range of motion allowed about the fixed central axis includes more than pitch and roll movements. The limits of the term "pivotal," as used in the claims, are unclear and cannot be determined from Applicants' specification. As used in the claims, the term "pivotal" presently invokes nothing more than the plain and ordinary meaning of "pivotal" (e.g. "to turn").

Applicants' arguments toward the cited prior art rely upon Applicants' interpretation of "pivotal." Since the examiner disagrees with Applicants' interpretation of "pivotal," the further arguments directed to the prior art are not persuasive.

In regard to Metzger et al., the rotational movement of plate 40 relative to plate 20 is pivotal within the plain meaning of the term "pivotal." Thus, Metzger does have the binding system required by claims 1, 13, and 24.

In regard to Humbel, the rotational movement of the base plate relative to the support is pivotal within the plain meaning of the term "pivotal," and the rotation is allowed by connecting element 60. Thus, Humbel discloses the system required by the claims. Furthermore, the system of Humbel is capable of moving through the full range of motion permitted by the binding system of the present invention. In figure 1 of Humbel, rotational motion is permitted about axis Z, pitch movement is permitted about axis X, and roll is permitted about axis Y, and the binding could move between all of the axes in a wobble motion about axis Z prior to being locked in position. Distinctions between the system of Humbel and the system of the present invention exist in the structural details that allow the motion to occur, rather than in the motion itself.

Also, the arguments directed toward the combinations of Humbel and Acuna and Humbel, Acuna, and Knapschafer are moot since they rely on alleged deficiencies of Humbel when no such deficiencies exist.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bryant discloses a suspension system comprising a ball-and-socket interface disposed between first and second members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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